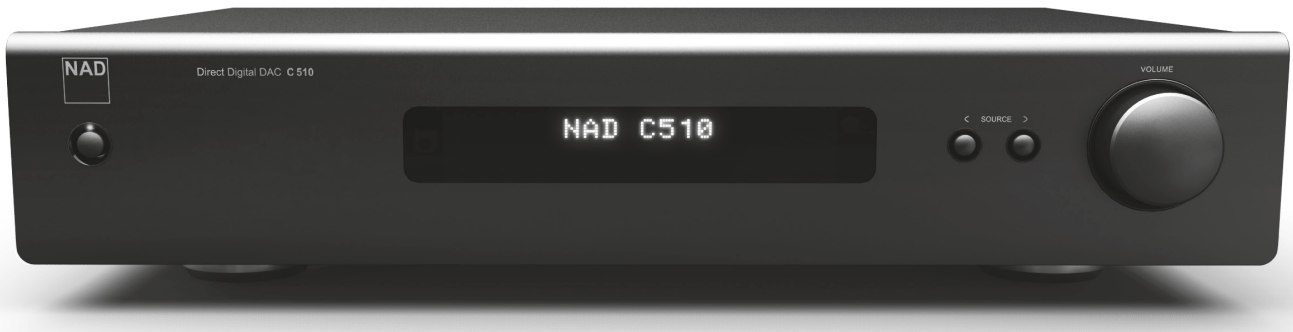
ENGLISH

C 510

Direct Digital DAC



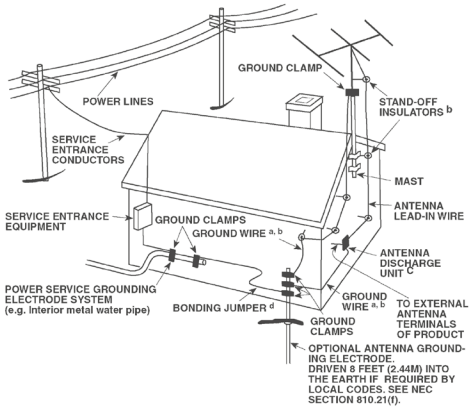
Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS FOR LATER USE.
FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE AUDIO EQUIPMENT.

1 **Read instructions** - All the safety and operating instructions should be read before the product is operated.
2 **Retain instructions** - The safety and operating instructions should be retained for future reference.
3 **Heed Warnings** - All warnings on the product and in the operating instructions should be adhered to.
4 **Follow Instructions** - All operating and use instructions should be followed.
5 **Cleaning** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Clean only with a dry cloth.
6 **Attachments** - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7 **Water and Moisture** - Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8 **Accessories** - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9 A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10 **Ventilation** - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11 **Power Sources** - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. The primary method of isolating the amplifier from the mains supply is to disconnect the mains plug. Ensure that the mains plug remains accessible at all times. Unplug the AC power cord from the AC outlet if the unit will not be used for several months or more.
12 **Grounding or Polarization** - This product may be equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13 **Power Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
14 **Outdoor Antenna Grounding** - If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

NOTE TO CATV SYSTEM INSTALLER
This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.


GROUND CLAMP
POWER LINES
STAND-OFF INSULATORS b
SERVICE ENTRANCE CONDUCTORS
MAST
ANTENNA LEAD-IN WIRE
SERVICE ENTRANCE EQUIPMENT
GROUND CLAMPS
GROUND WIRE a, b
ANTENNA DISCHARGE UNIT c
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
BONDING JUMPER d
GROUND WIRE a, b
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
GROUND CLAMPS
OPTIONAL ANTENNA GROUNDING ELECTRODE. DRIVEN 8 FEET (2.44M) INTO THE EARTH IF REQUIRED BY LOCAL CODES. SEE NEC SECTION 810.21(f).

15 **Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line surges.
16 **Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17 **Overloading** - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
18 **Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

WARNING: THE APPARATUS SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING, AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE APPARATUS. AS WITH ANY ELECTRONIC PRODUCTS, USE CARE NOT TO SPILL LIQUIDS INTO ANY PART OF THE SYSTEM. LIQUIDS CAN CAUSE A FAILURE AND/OR A FIRE HAZARD.

19 **Damage Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- **a)** When the power supply cord or plug is damaged.
- **b)** If liquid has been spilled, or objects have fallen into the product.
- **c)** If the product has been exposed to rain or water.
- **d)** If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- **e)** If the product has been dropped or damaged in any way.
- **f)** when the product exhibits a distinct change in performance-this indicates a need for service.

20 **Replacement Parts** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

21 **Safety Check** - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

22 **Wall or Ceiling Mounting** - The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

23 **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

24 **Headphones** - Excessive sound pressure form earphones and headphones can cause hearing loss.

25 **Battery Disposal** - When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area. Batteries (battery pack or batteries installed) must not be exposed to excessive heat such as sunshine, fire or the like.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAYBE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.

THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION

Changes or modifications to this equipment not expressly approved by NAD Electronics for compliance could void the user's authority to operate this equipment.

CAUTION REGARDING PLACEMENT

To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) that is equal to or greater than shown below.

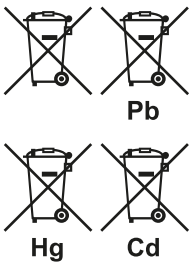
Left and Right Panels: 10 cm
Rear Panel: 10 cm
Top Panel: 10 cm

NOTES ON ENVIRONMENTAL PROTECTION

At the end of its useful life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's manual and packaging, point this out.

The materials can be reused in accordance with their markings. Through re-use, recycling of raw materials or other forms of recycling of old products, you are making an important contribution to the protection of our environment. Your local administrative office can advise you of the responsible waste disposal point.

INFORMATION ABOUT COLLECTION AND DISPOSAL OF WASTE BATTERIES (DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF EUROPEAN UNION) (FOR EUROPEAN CUSTOMERS ONLY)



Batteries bearing any of these symbols indicate that they should be treated as "separate collection" and not as municipal waste. It is encouraged that necessary measures are implemented to maximize the separate collection of waste batteries and to minimize the disposal of batteries as mixed municipal waste.

End-users are exhorted not to dispose waste batteries as unsorted municipal waste. In order to achieve a high level of recycling waste batteries, discard waste batteries separately and properly through an accessible collection point in your vicinity. For more information about collection and recycling of waste batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

By ensuring compliance and conformance to proper disposal of waste batteries, potential hazardous effects on human health is prevented and the negative impact of batteries and waste batteries on the environment is minimized, thus contributing to the protection, preservation and quality improvement of the environment.

RECORD YOUR MODEL NUMBER (NOW, WHILE YOU CAN SEE IT)

The model and serial number of your new C 510 are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model no: .....
Serial no.: .....

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THANK YOU FOR CHOOSING NAD.

C 510 Direct Digital DAC is another excellent product that exemplifies NAD's unique Direct Digital technology. Replacing the traditional analog preamp, the C 510 removes the source of noise and distortion that can obscure detail and limit the performance of many systems. By performing preamp functions like volume and source selection in the digital domain, the C 510 shortens the signal path and opens up new system possibilities.

The C 510's dynamic range, the accurate portrayal of music's subtle nuances from soft to loud, is better by about 20dB compared to other DACs and Preamps! And because the volume level is controlled by mathematics in the digital domain, there is no mechanical or electrical imprecision; all volume levels have exactly the same circuit conditions. Also, with the 35 bit architecture of the C 510, even 24 bit files are not truncated until well below the threshold of audibility.

As with all our products, NAD's "Music First" design philosophy guided the C 510 design that it can confidently promise you both state-of-the-art technology and audiophile-quality music listening for years to come.

We encourage you to take a few minutes now to read right through this manual. Investing a little time here at the outset might save you a good deal of time later, and is by far the best way to ensure that you make the most of your investment in the C 510.

One more thing: We urge you to register your C 510 ownership on the NAD Worldwide Web site:

http://NADelectronics.com/salon

For warranty information contact your local distributor.

NAD SHALL NOT BE HELD LIABLE FOR ANY TECHNICAL OR USER INTERFACE DISCREPANCIES IN THIS MANUAL. THE C 510 OWNER'S MANUAL MAY BE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. CHECK OUT THE NAD WEBSITE FOR THE LATEST VERSION OF THE C 510 OWNER'S MANUAL.

WHAT'S IN THE BOX

Packed with your C 510 you will find
Masters Series Accessories box containing the following

- A detachable mains power cord
- DR 1 remote control with 2 AA batteries
- C 510 Quick Start Guide sheet

SAVE THE PACKAGING

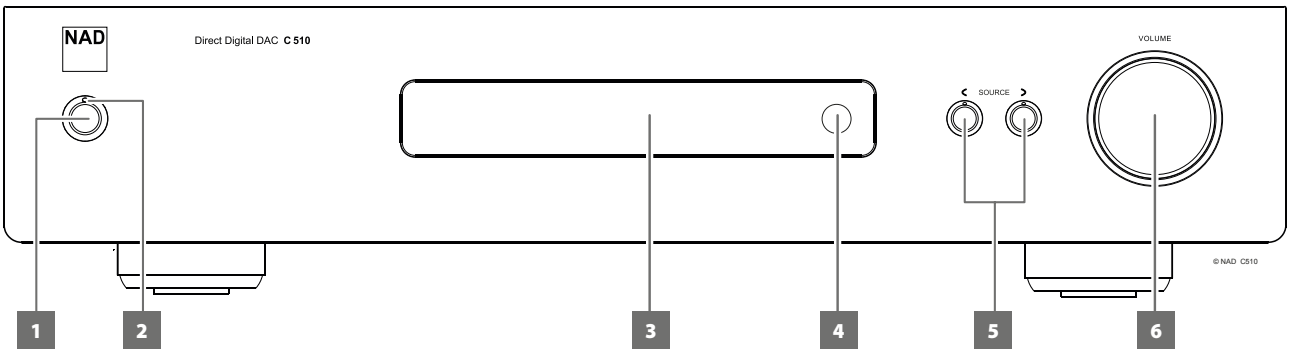
Please save the box and all of the packaging in which your C 510 arrived. Should you move or otherwise need to transport your C 510, this is by far the safest container in which to do so. We've seen too many otherwise perfect components damaged in transit for lack of a proper shipping carton, so please: Save that box!

CHOOSING A LOCATION

Choose a location that is well ventilated (with at least several inches to both sides and behind), and that will provide a clear line of sight, within 25 feet/8 meters, between the C 510's front panel and your primary listening/viewing position - this will ensure reliable infrared remote control communications.

IDENTIFICATION OF CONTROLS

FRONT PANEL



1 STANDBY BUTTON

- Press this button to switch ON the C 510 from standby mode. The Standby LED indicator will turn from amber to blue and illuminate the VFD.
- Pressing the STANDBY button again turns the unit back to standby mode.

NOTE

In order to turn ON the C 510 from standby mode or back to standby mode, the rear panel POWER switch must be in the ON position.

2 STANDBY LED

- This indicator will light up amber when the C 510 is at standby mode.
- When the C 510 is powered up from standby mode, this indicator will illuminate blue.

3 VACUUM FLUORESCENT DISPLAY (VFD)

- Display visual information about the current Source. Information supplied is generated by the Source.
- Provide also visual information about C 510's other functions, settings and indicators.
- "Unlock" is shown among the information displayed if no source input is connected to the particular Source. If a connected source is detected, the sampling rate will be displayed.

4 REMOTE SENSOR

- Point the DR 1 remote control at the remote sensor and press the buttons.
- Do not expose the remote sensor of the C 510 to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the C 510 with the remote control.

Distance: About 23ft (7m) from the front of the remote sensor.
Angle: About 30° in each direction of the front of the remote sensor.

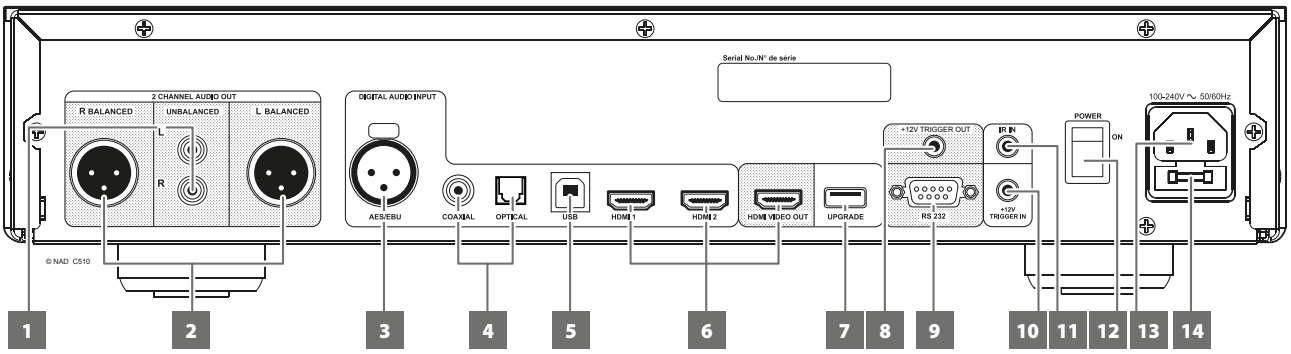
5 < SOURCE >

- Toggle to select through the Sources.

6 VOLUME

- Use this control to adjust the overall loudness of the output signal via 2-CHANNEL AUDIO OUT.

REAR PANEL



ATTENTION!

Please make sure that the C 510 is powered off or unplugged from the mains power source before making any connections. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

1 UNBALANCED

- Use a twin RCA-to-RCA lead to connect these sockets to the left and right analog input of a receiver or amplifier.

2 BALANCED

- Connect these XLR connectors to the corresponding XLR input of professional audio amplifiers.
- Ensure that proper pin configurations are followed – Pin 1: Ground, Pin 2: Positive (signal live) and Pin 3: Negative (signal return).

3 AES/EBU

- Digital audio stream from professional audio sources like SACD/CD Players or processors can be connected to this XLR connector.
- For high-end sources with higher sampling rates like 176kHz and 192kHz, it is highly recommended that such sources be interfaced with the AES/EBU IN connector. The AES/EBU IN is well suited to handle such sources with high sampling rate.

4 COAXIAL, OPTICAL

- Connect COAXIAL and/or OPTICAL to corresponding S/PDIF output of sources such as CD, DVD or BD players, digital cable box, digital tuners and other applicable components.

5 USB

- Using Type A to Type B cable connector (not supplied), interface computer audio to this asynchronous Type B USB input to directly stream 24/192 content from your PC, MAC or NAS (network-attached storage).
- In order to stream your computer audio via C 510, the "NAD USB Audio driver" that can be downloaded from the NAD website must be installed.
- Most PCs or MACs can automatically detect C 510, with "NAD USB Audio" already available as one of the playback device options in their respective audio device management settings. Select "NAD USB Audio" as the playback sound or audio setting on your PC or Mac.
- For more information, refer to the NAD USB AUDIO item in the USING THE C 510 – OTHER FEATURES.

IMPORTANT NOTICE

The use of the NAD USB Audio driver downloaded through the NAD site is done at the customer's own discretion and risk. The customer will be solely responsible for any damage to his/her computer system or loss of data arising out of or in connection with the use of this software driver. In no event shall NAD be liable for any direct, indirect, incidental, special, exemplary, or consequential damages including negligence or otherwise arising in any way out of the use of this software driver.

6 HDMI (HDMI 1,2; HDMI VIDEO OUT)

- Connect HDMI 1-2 inputs to the HDMI OUT connectors of source components such as BD/DVD player or HDTV satellite/cable box.
- Connect the HDMI VIDEO OUT to a HDTV or projector with HDMI input.

NOTE

HDMI 1-2 and HDMI VIDEO OUT function only as direct pass through.

WARNING

Before connecting and disconnecting any HDMI cables, both the C 510 and the ancillary source must be powered OFF and unplugged from the AC outlet. Failure to observe this practice may cause permanent damage to all equipment connected via HDMI sockets.

7 UPGRADE

- C 510 may need a software update to be in step with the latest technology trends. Check with your authorized NAD distributors for future software updates. Only authorized NAD distributors or service centers are allowed to implement a software update.
- Connect to this input a USB memory stick containing the software update. Use USB adaptor when necessary.

8 +12V TRIGGER OUT

- The +12V TRIGGER OUT is used for controlling external equipment that is equipped with a +12V trigger input. This output will be 12V when the C 510 is ON and 0V when the unit is either OFF or in standby.

IDENTIFICATION OF CONTROLS

REAR PANEL

9 RS 232

NAD is a certified partner of AMX and Crestron and fully supports these external devices. Check out the NAD website for information about AMX and Crestron compatibility with NAD. See your NAD audio specialist for more information.

- Connect this interface using RS-232 serial cable (not supplied) to any Windows compatible PC to allow remote control of the C 510 via compatible external controllers.
- Refer to the NAD website for information about RS232 Protocol documents and PC interface program.

10 +12V TRIGGER IN

With this input triggered by a 12V DC supply, the C 510 can be switched ON remotely from standby mode by compatible devices such as amplifiers, preamplifiers, receivers, etc. If the 12V DC supply is cut off, the C 510 will return to standby mode.

- Connect this +12V Trigger input to the remote device's corresponding +12V DC output jack using a mono cable with 3.5mm male plug. The controlling device must be equipped with a +12V trigger output to use this feature.

WARNING

The front panel Standby button is disabled as long as the male plug of the mono cable (with or without +12V DC) is connected to C 510's +12V TRIGGER IN. Unplug the mono cable for the C 510 to be normally switched ON (or back to standby mode) using the front panel STANDBY button.

11 IR IN

- This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another component to allow control of the C 510 from a remote location.

12 POWER

- Supply the AC mains power to the C 510.
- When the POWER switch is set to ON position, the C 510 goes to standby mode as shown by the amber status condition of the Standby LED. Press the front panel Standby button or remote control's [ON] button to switch ON the C 510 from standby mode.
- If you intend not to use the C 510 for long periods of time (such as when on vacation), switch off the POWER switch.
- With POWER switched off, neither the front panel Standby button nor remote control's [ON] button can activate the C 510.

13 AC MAINS INPUT

- The C 510 comes supplied with a separate detachable mains power cord.
- Before connecting the plug to the mains powers source, connect firmly first the other end to C 510's AC Mains input socket.
- Always disconnect the mains power plug from the mains power source first, before disconnecting the other end from the C 510's AC Mains input socket.

14 FUSE HOLDER

- Only qualified NAD service technicians can have access to this fuse holder. Opening this fuse holder may cause damage thus voiding the warranty of your C 510.

1 ON, OFF

The DR 1 remote has a separate ON and OFF button.
ON: Switch C 510 from Standby mode to operating mode.
OFF: Switch C 510 to Standby mode.

NOTE

In order to turn ON the C 510 from standby mode or back to standby mode, the rear panel POWER switch must be in the ON position.

2 DEVICE SELECTOR

A Device Selector button determines only what component the DR 1 will command; it does not perform any function on the C 510.

- Press desired Device Selector button for the applicable buttons to be directed to a "page" of commands relevant to the selected device. Upon selecting a Device, you can now press the corresponding DR 1 control buttons applicable for the selected Device.

3 INPUT SELECTORS

Refer to the corresponding labels printed in the remote control faceplate and their respective assigned buttons to make use of these functions.

- Set the DEVICE SELECTOR to "AMP" in order to gain access to these buttons.

The following table illustrates the corresponding C 510 source input when one presses the specified DR 1 button.

DR 1 BUTTON	C 510 SOURCE INPUT
INPUT 1	AES/EBU
INPUT 2	HDMI 1
INPUT 3	Coaxial
INPUT 4	USB
INPUT 5	HDMI 2
INPUT 6	Optical

4 NUMERIC KEYS: 0 to 9 number buttons: Direct-entry of track or file number.

5 DISPLAY: Use in renaming a Source.

6 MUTE: Temporarily mutes audio output or restores audio from mute mode. If "Volume Setup" is set to "Fixed" setting, [MUTE] will have no effect and effectively disabled.

7 ▲ SOURCE/SCAN ▼ : Toggle to select through the Sources.

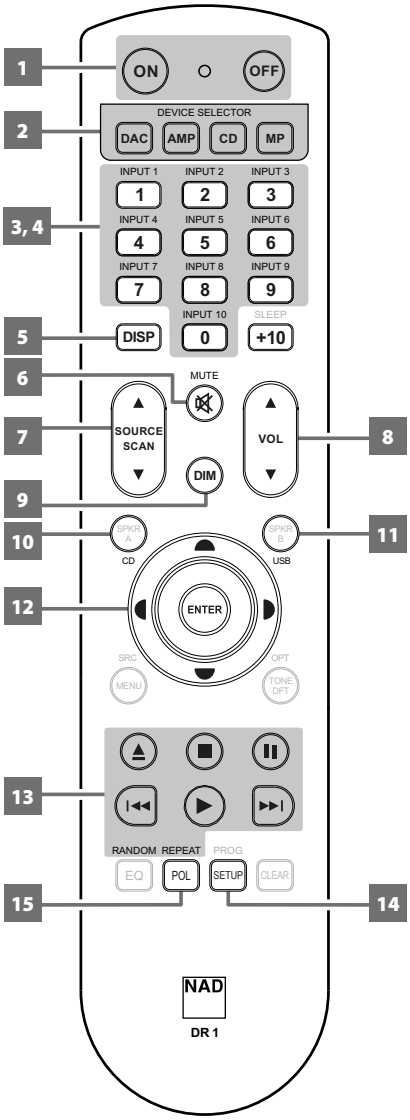
8 VOL ▲/▼ : Increase or decrease loudness level. If "Volume Setup" is set to "Fixed" setting, [VOL ▲/▼] will have no effect and effectively disabled.

9 DIM: Reduce or restore VFD brightness (5 levels of brightness).

10 CD: Command a compatible NAD CD Player to switch to CD mode.

11 USB: Command a compatible NAD CD Player to switch to USB mode.

12 ◓/◒/◖/◗: Navigate or select through menu items, options or lists.
ENTER: Confirm selected option, item or menu.



13 CD PLAYER CONTROL (use with compatible NAD CD Player models)
Some of the control buttons below are applicable only to specific NAD CD Player models; check the owner's manual of your NAD CD Player for control button compatibility.
REPEAT: Repeat track, file or whole disc.
RANDOM: Play tracks/files in random order.
[▲]: Open or close disc tray.
[■]: Stop playback.
[II]: Pause playback temporarily.
[▶▶I]: Go to next track or file.
[I◀◀]: Go to the beginning of current or previous track or file.
[◀◀/▶▶]: Not applicable for current NAD CD Player models.
[▶]: Start playback.

14 SETUP: Bring up Setup menu – Volume Setup, Auto Standby and Auto Display

15 POL: Bring up Polarity settings menu.

NOTE

All other control buttons not described above are not applicable to the C 510.

USING THE C 510

OTHER FEATURES

NAD USB AUDIO

In order to stream your computer audio via C 510, ensure that the Sound, Audio or playback device setting of your computer is set to "NAD USB Audio".

A NAD USB Audio driver can be downloaded via the NAD website link – *http://nadelectronics.com/products/hifi-amplifiers/C-510-Direct-Digital-Preamp-DAC*. Download "NAD USB Audio driver" from the "Manuals/Downloads" tab. Install this NAD USB Audio driver to your computer by following the instructions provided.

MINIMUM PC SYSTEM REQUIREMENT

Microsoft Windows XP Service Pack 2 or higher, Microsoft Windows 7

FOR MAC USERS

Minimum Mac OS X Snow Leopard (version 10.6) and later versions already include "NAD USB Audio" driver. Update your Mac OS if you cannot locate NAD USB Audio driver.

IMPORTANT NOTICE

The use of the NAD USB Audio driver downloaded through the NAD site is done at the customer's own discretion and risk. The customer will be solely responsible for any damage to his/her computer system or loss of data arising out of or in connection with the use of this software driver. In no event shall NAD be liable for any direct, indirect, incidental, special, exemplary, or consequential damages including negligence or otherwise arising in any way out of the use of this software driver.

SETUP MENU

The C 510 has three configurable features. To access these features, use the following (all function keys mentioned below are with reference to the DR 1 remote control).

1 Press [SETUP] and then use [▼/▲] to scroll through the following options - Volume Setup, Auto Standby and Auto Display.

2 Navigation
[▼/▲]: Scroll up/down the options.
[▶] or [ENTER] - Select an option or go to the next layer of options.
[◀] - Return to previous page or options.

VOLUME SETUP

The C 510 VOLUME control function is dependent upon the "Volume Setup" menu setting. "Volume" can either be set to "Fixed" or "Variable". Press [SETUP] button to launch "Volume Setup" menu. From "Volume Setup" menu, press [ENTER] or [▶] to bring up "Fixed" or "Variable" settings.

Fixed

If "Volume" is set to "Fixed", audio output level is fixed and the C 510's Volume Control is bypassed.

- Press [▲/▼] to set a desired preset dB level. Confirm setting by pressing [ENTER] or [▶]. Thereafter, audio output from C 510 can be adjusted by using the volume control of the separate amplifier the C 510 is linked into.
- If "Volume Setup" is set to "Fixed", remote control's [VOL ▲/▼] will have no effect and effectively disabled.

Variable

- When set to "Variable", the Volume level is directly adjustable using the remote control's [VOL ▲/▼] button. Correspondingly, audio output from C 510 can be adjusted by using the volume control of the separate amplifier the C 510 is linked into.

AUTO STANDBY

The C 510 has an automatic standby mode feature that can be turned ON or OFF.

On: C 510 will automatically go to standby mode if there are no user interface interaction and no active source within 30 minutes.

Off: C 510 will not go to standby mode at any time unless directly initiated by pressing the front panel Standby button or HTRM 2's [OFF] button.

AUTO DISPLAY

Auto Display gives the user the option to turn off the Vacuum Fluorescent Display after 15 minutes of no user interaction and no remote control command.

Enable: Display is turned off in the absence of any user interaction and remote control command within 15 minutes. Display wakes up or becomes illuminated again as soon as there is user interaction or remote control command.

Disable: Display remains illuminated even in the absence of any user interaction and remote control command within 15 minutes. This is the default setting.

POLARITY

Allow compensation for recordings that have reversed polarity. Press [POL] button of DR 1 to launch Polarity settings.

Positive: A positive sine wave at the input remains positive at the output. Polarity is defaulted to "Positive" setting.

Reversed: A positive sine wave at the input is negative (inverted) or reversed at the output.

RENAMING A SOURCE INPUT

A particular source input can be renamed according to your preference. You can use up to 16 characters in renaming a source input. Below is the procedure on how to rename a source input. Note that all buttons mentioned below are with reference to the remote control.

Example: Rename "HDMI 1" to "BD PLAYER".

1 Press [▲SOURCE/SCAN▼] button to go to HDMI 1 source. "HDMI 1" is shown in the upper section of the VFD.
2 Then, press and hold [DISP] button until "HDMI 1" is shown in the lower section of the VFD and with "H" flashing.
3 Within 5 seconds, toggle the [▲/▼] buttons to select the first character ("H" from the alphabetical list). The ranges of characters available are A-Z, a-z, _ (space) and 0-9.
4 Press [▶] or [ENTER] to select the character and at the same time move on to the next character. Press [◀] to return to the previous character. Repeat steps 3 and 4 for each character in sequence.
5 Complete the renaming process by pressing the [DISP] button again to save the new Source input name.

NOTE

The renaming process will be automatically terminated if no button is pressed within 5 seconds. Any renamed characters at the time of termination will not be saved.

CONDITION	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
No USB audio.	• NAD USB Audio is not installed in your PC.	• Download NAD USB Audio driver from NAD website and install to your PC.
	• Sound or Audio device setting of your PC or Mac is not set to "NAD USB Audio".	• Set your PC or Mac Audio or Sound device setting to "NAD USB Audio".
	• No music files being played back from your PC or Mac.	• Playback a music file from your computer.
	• Mac OS not updated to include NAD USB Audio.	• Download latest update for your Mac OS.
Remote control's [VOL ▲/▼] no function.	• "Volume Setup" is set to "Fixed".	• Set "Volume Setup" to "Variable.
Remote control's [MUTE] no function.		
Cannot power ON the C 510.	• Rear panel POWER switched off.	• Set to "ON" the rear panel POWER switch and then press front panel Standby button.
VFD is dim.	• Low brightness level of VFD is selected.	• Toggle [DIM] button until desired brightness level.
C 510 does not respond to remote control commands.	• Batteries are flat or incorrectly inserted.	• Check batteries.
	• Infrared receiver (IR) window of C 510 or IR transmitter of the remote control is obstructed.	• Check IR windows and ensure clear line-of-sight from remote to C 510.
	• C 510 front panel is in very bright sunlight or ambient light.	• Reduce sunlight/room lighting.

RESTORING C 510 TO ITS FACTORY DEFAULT SETTINGS

1 Press and hold front panel [◗] button.
2 Set to ON the rear panel POWER switch while still holding on to [◗] button.
3 VFD illuminates. Release [◗] button. VFD will show

"VFD TEST" is flashing. V1.xx stands for the software version.

4 Within 3 seconds, press front panel Standby button and "RESET" will now flash.
5 C 510 will go to reset mode with the VFD showing "Factory Reset..".

The C 510 is now reset and will automatically shut down.

REFERENCE

SPECIFICATIONS

OVERALL SPECIFICATIONS	
Rated distortion (THD+N with AES 17 filter)	<0.0005% (ref. 1 kHz 0 dBFS)
	<0.002% (ref. 1 kHz -60 dBFS)
Signal-to-noise ratio	< -123 dB (ref. 0 dBFS 2V out)
Channel separation	> -115 dB (ref. 0 dBFS Volume -1dB)
Sample rate	32 kHz to 192 kHz (USB and digital S/PDIF)
Frequency response	±0.5 dB (ref. 20 Hz – 96 kHz @ 192 KHz sample rate)
Output level	2V (ref. input 0dBFS)

POWER CONSUMPTION	
AC Supply	100-240V AC ~ 50/60Hz
Standby power	<0.5W
Idle power	16W

INPUT/OUTPUT TERMINALS	
INPUT	
AES/EBU	XLR
SPDIF	Coaxial
	Optical
HDMI x 2	2-channel PCM
USB Audio Codec 2.0	Asynchronous 24/192 support
OUTPUT	
HDMI VIDEO OUT	3D pass through
Analog	47 ohms (Unbalanced)
	110 ohms (Balanced)
+12V Trigger Out	12V ±2.0%

DIMENSION AND WEIGHT	
Unit Dimensions (W x H x D) *	435 x 99 x 309 mm
	17 1/8 x 3 15/16 x 12 3/16 inches
Net Weight	4.7 kg (10.4 lbs)
Shipping Weight	5.6 kg (12.3 lbs)

* - Gross dimensions include feet, extended buttons and rear panel terminals.

Specifications are subject to change without notice. For updated documentation and features, please log onto www.NADelectronics.com for the latest information about C 510.

www.NADelectronics.com

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